PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of	Docket No: Q79454
Hideo MIYAKE, *et al.*	
U.S. Patent No. 6,340,551	Issued: January 22, 2002
Reissue Appln. No.: 10/761,099	Group Art Unit: 1752
Confirmation No.: 2438	Examiner: Richard L. SCHILLING
Filed: January 21, 2004	

For: POSITIVE TYPE PHOTOSENSITIVE IMAGE-FORMING MATERIAL FOR USE WITH AN INFRARED LASER

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellants submit the following:

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I. REAL PARTY IN INTEREST

The real party in interest is FUJIFILM Corporation, 26-30, Nishiazabu 2-chome, Minato-ku, Tokyo, Japan, the assignee of record by virtue of an assignment recorded in the United States Patent and Trademark Office at Reel 019193/0322, recorded March 19, 2007.

II. RELATED APPEALS AND INTERFERENCES

To the knowledge and belief of Appellants, the Assignee, and the undersigned, there are no other prior or pending appeals, interferences, or judicial proceedings which may be related to, or will directly affect or be directly affected by the Board's decision in the instant appeal.

Although there is no pending interference involving the present application, Appellants consider that at least some of the present claims interfere with subject matter claimed in U.S. Patent 6,534,238 and U.S. Patent 6,358,669.

III. STATUS OF CLAIMS

In this reissue application, Claims 1-81, 85-87, 92-97, and 99-128 are all the claims pending in the application.

Claims 1-48, 76-81, 92-97 and 99 are allowed.

Claims 49-75, 85-87, and 100-128 are rejected.

The rejected claims 49-75, 85-87, and 100-128 are being appealed.

IV. STATUS OF AMENDMENTS

With the filing of this Brief, all Amendments have been entered and considered by the Examiner.

The Appendix included with this Brief sets forth the claims involved in the appeal and reflects all of the claim amendments that have been entered by the Examiner.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Of the presently rejected claims, Claims 49, 100, 104, 106, 110, 111, 115, 119, and 123 are independent.

Claim 49 relates to a positive type photosensitive image-forming material for use with an infrared laser, comprising a substrate and two layers: (1) a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity, and a material which generates heat upon absorbing light; and (2) a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group. Layer (B) is laminated directly on Layer (A) formed on the substrate, and at least layer (B) contains at least one infrared-absorbing dye compound which generates heat upon absorbing light. (col. 2, line 66 to col. 3, line 28; col. 6, line 6 to col. col. 7, line 25; col. 17, lines 4-25).

Each of the rejected independent claims similarly relates to a positive type photosensitive image-forming material for use with an infrared laser, and recites that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity. Each of rejected independent claims 104, 106, 111, 115, 119 and 123 requires that layer (B) contains less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, and Claims 100 and 110 more specifically recite a novolak resin. Each of the rejected independent claims specifies a layer structure in which layer (B) is laminated directly on layer (A) formed on the substrate. These limitations are referred to generally herein as the "specified layer structure," which may be further limited to specific

copolymer and resin components. The independent claims differ with respect to the composition of layers (A) and (B), the compound which generates heat upon absorbing light, and the layer(s) which contain the heat-generating compound. Claims 111 and 119 refer to a positive type photosensitive image-forming material for use with an infrared laser having the specified layer structure, which is formed by specified method steps.

Claim 100 relates to a positive type photosensitive image-forming material having the specified layer structure, in which the copolymer of layer (A) contains at least one additional monomer selected from the group consisting of the following monomers (1) to (12):

(1) an acrylate or methacrylate having an aliphatic hydroxyl group,

(2) an alkyl acrylate,

(3) an alkyl methacrylate,

(4) an acrylamide or methacrylamide,

(5) a vinyl ether,

(6) a vinyl ester,

(7) a styrene,

(8) a vinyl ketone,

(9) an olefin,

(10) N-vinyl pyrrolidone, N-vinyl carbazole, 4-vinyl pyridine, acrylonitrile, or methacrylonitrile,

(11) an unsaturated imide, and

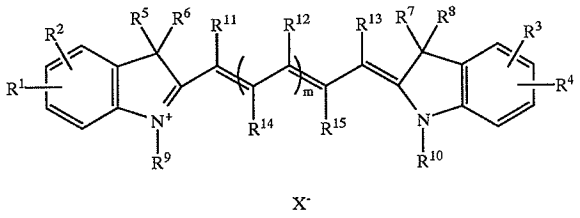
(12) an unsaturated carboxylic acid.

(col. 6, line 20 to col. 7, line 26). Claim 100 further recites that layer (B) contains not less than 50% by weight of a novolak resin, and that at least one of layer (A) and layer (B) comprises at

least one compound which generates heat upon absorbing light. (col. 14, lines 56-67; col. 16, line 66 to col. 17, line 3).

Claim 104 relates to a positive type photosensitive image-forming material for use with an infrared laser having the specified layer structure, in which at least one of layer (A) and layer (B) contains a compound which generates heat upon absorbing light that is represented by the formula (XII):

(XII)



(col. 16, line 66 to col. 17, line 25).

Claim 106 relates to a positive type photosensitive image-forming material having the specified layer structure, wherein the layer (B) contains a surfactant, and at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

Claim 110 relates to a positive type photosensitive image-forming material for use with an infrared laser having the specified layer structure, in which layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, 10% by mol or more of at least one monomer effective to improve plate wear resistance and sensitivity and selected from an unsaturated imide, methacrylamide, and an unsaturated carboxylic acid; layer (B) contains not less than 50% by weight of a novolak resin; and wherein layer (A) comprises a cyanine dye and layer (B) comprises an Ethyl Violet dye.

Claim 111 relates to a positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of providing a substrate;

coating on the substrate a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity; and coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A) using a solvent which does not dissolve the layer (A), wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and wherein the layer (B) is laminated directly on the layer (A) formed on the substrate. (col. 19, line 65 to col. 20, line 27).

Claim 115 relates to a positive type photosensitive image-forming material having the specified layer structure, in which at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and a coated amount of the layer (A) is from 1.4 to 4.0 g/m^2. (col. 14, lines 50-53).

Claim 119 relates to a positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of providing a substrate, coating on the substrate a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity, coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A), and drying the coated layer (B) by applying a high-pressure air flow or heat provided by a heating roll, wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and wherein the layer (B) is laminated directly on the layer (A) formed on the substrate.

Claim 123 relates to a positive-type photosensitive image-forming material having the specified layer structure, in which layer (A) contains a material which generates heat upon absorbing light.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. § 251 as being based upon new matter added to the patent for which reissue is sought. Also, referring to Section No. 2 at page 3 of the Final Office Action, Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Referring to Section No. 3 at page 3 of the Final Office Action, Claims 49-50, 53-55, 85-87, 100-101, 111-112, 115-116, 119-120, 123-124 and 127 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,922,502 ("Damme '502").

Referring to Section No. 4 at page 3 of the Final Office Action, Claims 51-52, 56-75, 102-105, 110, 113, 117-118, 121-122, 125-126 and 128 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Damme '502 in view of U.S. Patent No. 5,731,123 ("Kawamura") and U.S. Patent No. 6,280,899 ("Parsons").

Referring to Section No. 5 at page 3 of the Final Office Action, Claims 49-50, 54, 58-61, and 64-67 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,060,222 ("West").

VII. ARGUMENT

A. REJECTIONS UNDER §251 AND §112, FIRST PARAGRAPH

Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. §251 as being based upon new matter added to the patent for which reissue is sought. Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement, based on the alleged new matter.

The Examiner maintains that Layer A compositions which do not require copolymers with at least 10% of at least one monomer of formulas a-1 to a-3, as claimed in the original '551 patent as issued, are new matter. The Examiner cites a statement describing preferred embodiments in the specification (col. 6, lines 6-20) that "It is necessary that the aqueous solution-soluble copolymer contains not less than 10% by mol of at least one of the above (a-1) to (a-3) as a copolymerization component." The Examiner argues that monomers of a-1 to a-3 are not disclosed as optional comonomers in the polymers of layer A anywhere in the original patent, and that there is no generic disclosure of polymers without a-1 to a-3 in the specification. The Examiner states that the properties set forth in the rejected claims for layer A comonomers are not disclosed as properties for monomers outside the scope of a-1 to a-3.

The Examiner maintains that the copolymers of claims 100-103 and 110 are new matter since the patent (col. 6, lines 20-68) discloses that the listed comonomers are only present as optional monomers in copolymers containing one of monomers a-1 to a-3.

The Examiner further maintains that in claims 100-126 and 128, materials without a compound that generates heat upon absorbing light in layer B contain new matter since the patent is limited to disclosing materials with compounds that generate heat by absorbing light in layer B even though layer A may also contain a heat generating light absorber. The Examiner

states that dependent claim 128 contains new matter since the cyanine dyes for layer B are only disclosed in the specification and original patent as infrared absorbing dyes for generating heat. The Examiner maintains that the "concept and advantages of the disclosed invention covered by the instant claims is the presence of underlayer A so that heat generated by the light absorber in layer B does not disperse into the substrate." Based on this incorrect assumption, the Examiner concludes that "layer B not having the light absorber to generate heat is inconsistent with the concept of the invention of using layer A to reduce the amount of heat generated in layer B from the light absorbers from dispersing into the substrate."

1. The Inventions Disclosed in the '551 Patent

The new matter and written description rejections are based on an incorrect understanding of the inventions that are disclosed in the '551 patent. The Examiner relies solely on a description of the most preferred disclosed embodiment, which was originally claimed in the patent as issued, and fails to take into account the disclosure of broader embodiments which relate more generally to the layer structure of the positive-type image-forming material for use with an infrared laser, and the functional characteristics of the layers including the function of layer (A) to improve both plate wear resistance and sensitivity.

The passages cited by the Examiner from the Description of the Preferred Embodiments refer to a most preferred layer (A) composition comprising a copolymer containing not less than 10% of monomer (a-1) to (a-3), that was claimed in the original '551 patent. The invention is more broadly described in the Summary of the Invention, as the discovery that the poor image-forming property of a recording layer "using an aqueous alkali solution-soluble polymer compound" can be improved "by the forming specific layer construction" and that this material has "excellent plate wear resistance" and "stable sensitivity to the concentration of a developing

solution, that is a good development latitude." (col. 2, lines 33-58). A positive photosensitive image forming material for an infrared laser having "remarkably improved development latitude" can be obtained by using the disclosed layer construction. (col. 2, lines 50-56). A preferred embodiment of this generic invention is an alkali-soluble copolymer compound containing one of three specific monomers identified as a-1 to a-3, which "remarkably broaden[s]" development latitude. (col. 2, lines 59-65).

2. Appellants did not add new matter to the disclosure

Each of the presently rejected independent claims recites that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity. The claims thus define the monomer that is present in the copolymer of layer (A) by its function, rather than its structure. The functional recitation "effective to improve plate wear resistance and sensitivity" finds literal support in the description of the '551 Patent (*e.g.*, at col. 6, lines 6-20; col. 2, lines 43-49). Accordingly, this functional limitation recited in the rejected claims cannot be new matter, because it was literally present in the specification as filed, and nothing new has been added to the disclosure with respect to this functional characteristic of the copolymer in layer (A). The new matter rejection should accordingly be reversed in the absence of any showing by the Examiner that an amendment has introduced new matter into the disclosure, in violation of 35 U.S.C. §132.

3. The recitation of "a monomer effective to improve plate wear resistance and sensitivity" is supported by a written description under §112, first paragraph

Claims 49-75, 85-87 and 100-128 define a positive-type photosensitive image-forming material for use with an infrared laser having two layers, in which layer (A) contains "not less

than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity." This definition substitutes a functional characteristic of the copolymer, which is its ability to improve plate wear resistance and selectivity, for the structural definition of the monomer present in the original claims. The rejected claims thus define the genus of copolymers present in layer (A) by functional, rather than structural characteristics. The issue of written description is not whether the specification supports a broader, unclaimed *structural* generic definition, but rather whether the functional description provided in the specification, which is correlated with numerous specific copolymer structures and physical characteristics, supports the present copolymer genus that is defined by its *function*. Appellants submit that it is clear that they had possession of, and fully disclose, this generic invention.

The Examiner maintains that the functional definition of the copolymer as containing "a monomer effective to improve plate wear resistance and sensitivity" is not supported by a written description under §112, first paragraph, even though this recitation finds literal support in the description. (col. 6, lines 6-20; col. 2, lines 43-49). The Examiner has rejected Claims 49-75, 85-87 and 100-128, maintaining that the invention disclosed in the '551 patent is limited to the originally claimed subject matter, in which the copolymer contains at least 10% of a monomer (a-1) to (a-3).

Appellants submit that the passages in the specification stating that the copolymers in layer (A) contain at least one of monomers (a-1) to (a-3) are descriptions of preferred embodiments, and that the specification clearly and literally describes a broader invention which encompasses a layer (A) which contains not less than 50% by weight of an aqueous alkali-

soluble polymer compound containing, as a polymerization component, 10% by mol or more of "a monomer effective to improve plate wear resistance and sensitivity."

The Examiner maintains that "[t]he original patent is limited to copolymers with at least 10% of at least one monomer of formulas a-1 to a-3 in layer A." The Examiner has failed to take into account the more general description of the invention as being a two-layer structure in which the first layer contains an aqueous alkali soluble copolymer compound and the second layer contains an aqueous alkali-soluble resin having a phenolic hydroxyl group, where the two layers have different solubilities in an alkaline solution (*e.g.*, col. 19, line 65 to col. 20, line 27). The broader disclosed invention is a two-layer positive image-forming material for use with an infrared laser, which improves the image forming properties of the recording layer by using the claimed aqueous alkali soluble copolymer that improves plate wear resistance and sensitivity in the first layer of a "specific layer construction" (col. 2, lines 33-49). Having made and disclosed this broader invention, which is both novel and nonobvious, Appellants are entitled to claim it by defining the layers of this novel and nonobvious photosensitive element in functional, rather than purely structural, terms.

Contrary to the Examiner's theory, there is nothing improper about defining a generic invention in functional terms, where a person skilled in the art would be able to make and use the claimed generic invention. In *Capon v. Eshhar*, the Federal Circuit held that claims to a novel DNA described only in terms of the functional characteristics of the encoded protein were supported by an adequate written description which did not include any specific nucleotide sequences, where a person skilled in the art could practice the claimed invention. 418 F.3d 1349, 1358 (Fed. Cir. 2005). In the present case, the Examiner the disclosure of the specification

places the functionally-defined copolymer recited in the claims in the possession of those skilled in the art.

The Examiner's objection, that the specification does not disclose other examples of less-preferred comonomers that may be included in the aqueous alkali-soluble copolymer of layer (A), does not establish that the generic claims are not supported by a written description. The law is unmistakably clear that claims to a generic chemical invention may be adequately described without the disclosure of a single species or working example. For example, in *Falkner v. Inglis*, the Federal Circuit held that ""in accordance with our prior case law . . . (1) examples are not necessary to support the adequacy of a written description[;] (2) the written description standard may be met (as it is here) even where actual reduction to practice of an invention is absent; and (3) there is no per se rule that an adequate written description of an invention that involves a biological macromolecule must contain a recitation of known structure." 448 F.3d 1357, 1366 (Fed. Cir. 2006).

In addition to the literal description of the functional characteristics of the claimed layer (A), the specification provides numerous examples of specific copolymers which provide both improved plate wear resistance, and "remarkably" improved development latitude and sensitivity, including the preferred embodiments in which the generic aqueous alkali-soluble copolymer contains at least 10% of monomer a-1 to a-3. As described in the specification, the copolymer that is present in layer (A) contains any of 12 additional comonomers, which are specifically recited in Claim 100. With respect to preferred comonomer (a-3), this monomer is described as a monomer having a phenolic hydroxyl group, selected from acryl amide, methacryl amide, acrylate, methacrylate, and hydroxystyrene. (col. 3, lines 29-34). The specification also discloses at least 16 representative species of preferred comonomers encompassed by (a-1), (a-2)

and (a-3), in various copolymers each of which provides the functional characteristics of the present claims (col. 4, line 58 to col. 6, line 5).

Appellants submit that the express functional definition of a copolymer containing "a monomer effective to improve plate wear resistance and sensitivity," together with the disclosure of at least 16 representative species within the three preferred monomer genera (a-1) to (a-3), supports generic functional claim scope with respect to the claimed copolymer in layer (A).

In the present case, the issue is whether a person skilled in the art would appreciate that the Appellants possessed the generically claimed invention, which is a positive-type photosensitive image-forming material having a layer (A) containing an aqueous alkali-soluble polymer that is defined in functional terms, *i.e.*, is based on the sensitivity and wear characteristics of the material, rather than on specific recitation of the copolymer's structure. The Appellants do not seek a broader *structural* definition of the copolymer that is present in layer (A), but instead submit that the numerous copolymer structures that are disclosed in the specification, each of which provides the recited functional characteristics, and the express functional description of a copolymer that is effective to improve plate wear resistance and sensitivity, establish that they made a generic invention in which layer (A) is described in *functional*, rather than structural terms. The Examiner has failed to address this issue.

The issue is not support for a generic invention defined by broader structure than the disclosed monomers, but whether copolymers containing the disclosed monomers are representative of the claimed genus of functionally-defined copolymers in layer (A). It is well settled that one or a limited number of species can support generic functional claims, even in a highly unpredictable field such as biotechnology. *See, e.g.*, *Enzo Biochem v. Gen-Probe, Inc.*, 323 F.3d 956, 966-67 (Fed. Cir. 2002) ("If those sequences are representative of the scope of the

genus claims, *i.e.*, if they indicate that the patentee has invented species sufficient to constitute the genera, they may be representative of the scope of those claims."); *Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1073 (Fed. Cir. 2005) (claims encompassing any polypeptide isolated from a broad class of organisms and viruses, claimed solely by reference to a combination of DNA polymerase activity and RNase H activity, were adequately supported by a written description of one DNA sequence and one amino acid sequence); *In re Alonso*, 88 USPQ2d 1849, 1852 (Fed. Cir. 2008) (a generic invention can be described by disclosing: (1) a representative number of species in that genus; or (2) its "relevant identifying characteristics," such as "complete or partial structure, other physical and/or chemical properties, functional characteristics when coupled with a known or disclosed correlation between function and structure, or some combination of such characteristics) (quoting *Enzo Biochem, supra*).

In the present case, Appellants have disclosed both a large number of representative species of copolymers which provide layer (A) with the claimed generic functional characteristics, and other physical and chemical characteristics (such as molecular weight and numerous comonomers) of suitable copolymers. Appellants have also described the correlation of the claimed functional characteristics with the structures of numerous monomers and comonomers that are present in suitable aqueous alkali-soluble copolymers. For example, in the generic structural description of copolymers containing monomer (a-3), a number of monomers and comonomers are disclosed, including the common structural feature of a phenolic hydroxyl group correlated with the recited function. (col. 5, line 61 to col. 6, line 5; with comonomers col. 6, line 20 to col.. 7, line 22).

In view of this disclosure, Appellants submit that the Examiner has failed to demonstrate that the numerous species of copolymers disclosed in the specification, the physical and chemical

characteristics of suitable copolymers, and the express disclosure of layer (A) as a layer containing "as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity" would not inform a person skilled in the art that the Appellants possessed the claimed generic invention.

In determining whether the extensive disclosure of copolymers within the scope of the present claims supports the functional definition of the copolymer in layer (A), the Examiner bears the initial burden of presenting a prima facie case of unpatentability, by presenting evidence or reasons why those skilled in the art would not recognize in the disclosure a description of the invention defined by the present functional claims. *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996). Even where the specification contains a description of claimed subject matter that is not *in ipsis verbis* with the claims, the Examiner "must provide reasons why one of ordinary skill in the art would not consider the description sufficient." *Id.* In the present case, the generic invention, which includes a layer (A copolymer containing a monomer which improves plate wear resistance and sensitivity, is described *in ipsis verbis* with the rejected claims. The Examiner has failed to carry the initial burden of providing reasons or evidence why the disclosure of an aqueous alkali-soluble copolymer containing any of at least 16 disclosed monomer species, and dozens of suitable comonomers, does not inform those skilled in the art that the Appellants invented a two layer material in which layer (A) contains a copolymer that has the claimed functional characteristics. The Examiner has failed to explain why the disclosure of these numerous copolymer and monomer species is not representative of a genus of functionally-defined copolymers that effectively improve plate wear resistance and sensitivity. It is respectfully submitted that the functional characteristics of numerous monomers including the disclosed monomers (a-1) to (a-3), which are monomers disclosed to be "effective to improve

plate wear resistance and sensitivity," demonstrate that a person of ordinary skill in the art would have appreciated that Appellants were in possession of the generic subject matter now recited in the amended claims, and the rejection under §112, first paragraph should be reversed.

The Examiner cites a statement that it is "necessary" that the copolymer contain not less than 10% of at least one monomer (a-1) to (a-3) (col. 6, line 6). This description, however, falls within a discussion of the description of the preferred embodiments. (col. 3, line 50). In this specific context, the term "necessary" is understood to mean "necessary to obtain the best result" in the most preferred embodiment, which is a material in which development latitude is "remarkably broadened" by including these specific monomers. (Summary of the Invention, col. 2, lines 59-65). It was a mistake for Appellants to have limited the claims of the '551 Patent to these most-preferred embodiments, and Appellants are correcting the mistake via, for example, independent Claims 49, 100, 104, 106, 110, 111, 115, 119, and 123. The specification includes a description of a more generally defined 2-layer positive-type photosensitive material, in which layer (A) contains an aqueous alkali soluble copolymer, that is effective to provide excellent plate wear resistance and a good development latitude. (col. 2, lines 33-49). Nothing in the specification unequivocally limits the scope of the disclosed invention to the most-preferred embodiments, and the description of monomers (a-1) to (a-3) as necessary for attaining the most-preferred combination of wear resistance and remarkably broadened development latitude does not negate the broader functional description of the invention.

This case is thus similar to *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, where the Federal Circuit considered the sufficiency of a written description supporting broad claims covering vertebrate cells that are genetically modified to produce high levels of human erythropoietin ("EPO") in culture. 314 F.3d 1313 (Fed. Cir. 2003). The specification stated that

the claimed cells were "were "uniquely characterized" by the expression of exogenous DNA, but the court held that this statement "simply do[es] not clearly indicate that exogenous expression is the only possible mode of the invention or that other methods were outside the stated purpose of the invention." *Id.* at 1334. In the present case, the statement that specific monomers are "necessary" to obtain remarkably broadened development latitude does not make it "crystal clear" that other materials having excellent wear resistance, in combination with good development latitude, are not part of the disclosed invention. *See Johnson Worldwide Associates v. Zebco Corp.*, 175 F.3d 985, 993 (Fed. Cir. 1999).

For these reasons, the rejection of Claims 49-75, 85-87 and 100-128 under §112, first paragraph for lack of written description should be reversed. Because the new matter rejection of Claims 49-75, 85-87 and 100-128 is based on the theory that these claims are not supported by a written description, the new matter rejection under §251 should also be reversed.

4. The recitation that at least one of layer (A) and layer (B) contains a compound which generates heat upon absorbing light is supported by a written description under §112, first paragraph and is not new matter

Independent Claims 100, 104, 106, 111, 115 and 119 recite that at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light. Claim 123 recites that layer (A) contains a material which generates heat upon absorbing light. Claim 110 recites that layer (A) comprises a cyanine dye and layer (B) comprises an Ethyl Violet dye. Claim 128, which depends from Claim 110, recites that layer (B) further comprises a cyanine dye. Dependent Claims 101, 105, 107, 112, 116, 120, 124, and 127 similarly require that layer (B) contains a compound which generates heat upon absorbing light.

The Examiner maintains that "[t]he presence of the compound that absorbs light to generate heat in Layer B is not disclosed as optional or preferred in the patent but rather as necessary...." Appellants submit that descriptions in the specification stating that the compound which generates heat upon absorbing light is present in layer (B) are descriptions of preferred embodiments, and that Appellants need not limit the claims of the '551 Patent to such preferred embodiments. The disclosure of the specification as a whole demonstrates that Appellants possessed a broader invention, in which either or both layers may contain the compound which generates heat upon absorbing light.

The Examiner acknowledges that the compound which generates heat upon absorbing light may be present in both layer (A) and layer (B), but cites a statement that "[i]t is necessary to add at least one of compounds which generates heat upon absorbing light, such as dyes or pigments, to the layer (B), and they may be added to another layers in the image forming material, for example, to the layer (A) previously explained." (col. 16, line 66 to col. 17, line 3). The use of the term "necessary" to describe a preferred embodiment having superior development latitude does not unequivocally limit the scope of the disclosed invention to most-preferred embodiments. *See Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313 (Fed. Cir. 2003) (for the same reasons discussed above).

This statement in the patent is in error, because the specification also discloses that a functioning positive-type photosensitive image-forming material is provided regardless of whether the compound which generates heat upon absorbing light is present in layer (A) or layer (B), so long as it is present in one layer of the positive-type photosensitive image-forming material. It is preferred that the compound be present in layer (B), because in the image-forming material "the sensitivity and the development latitude are improved remarkably because the layer

(A) . . . exists between the layer be and the substrate, so a heat generated by the compound which generates heat upon absorbing light in layer (B) is not dispersed to the substrate, and the heat can be efficiently used for development." (col. 4, lines 25-32). It is thus clear from the specification that this is simply a description of one "remarkably" improved preferred embodiment.

The specification also discloses materials in which only one layer containing a compound which generates heat upon absorbing light is directly coated on the substrate. One disclosed embodiment contains an alkali-soluble polymer, a material absorbing light to generate heat, and further comprises a sulfone compound. (col. 23, lines 36-45). The specification further states that "these dyes or pigments may be added in the same layer with another components, and may be added in another layers which are formed for dyes or pigments. . . . Dyes or pigments and adhesive resin are preferably added to the same layer, but may be added to different layers." (col. 33, lines 20-29). While this passage may refer to the sulfone-compound containing material, it nonetheless shows that Appellants appreciated and disclosed that functional positive photosensitive material may contain a compound which absorbs light and generates heat in a layer coated on a substrate corresponding to layer (A) of the present claims, in both layers of a two-layer structure, or in a layer corresponding to layer (B) of the present claims.

In another embodiment disclosed as a comparative example, a single layer containing an aqueous alkali-soluble copolymer containing a comonomer according to the invention and a cyanine dye was coated on a substrate, without the layer (B) required by the present claims. (Comparative Example 1, col. 42, lines 44-49). This material had a development latitude that was inferior to a two-layer material, but had plate wear resistance superior to a single layer material using a novolak resin and a cyanine dye. (Table I, col. 43, lies 30-40).

Reissue applicants are not limited to claiming preferred embodiments, and claims may be supported by comparative examples, or even by disclosure which disparages the later-claimed subject matter. *See Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1374 (Fed. Cir. 2005). It is not necessary that every limitation of a claim be supported by a single example, and different examples may provide a written description of different aspects of a claimed invention. *See In re Alton*, 76 F.3d 1168, 1176 (Fed. Cir. 1996). The disclosure of the '551 Patent specification, taken as a whole, fairly informs those skilled in the art that the Appellants invented embodiments of the positive-type photosensitive material in which an infrared-absorbing dye could be included in a layer coated on a substrate corresponding to the present layer (A), in a layer corresponding to layer (B), or in both layers.

For these reasons, the written description and new matter rejections of Claims 100 to 128 should be reversed.

5. Claims 101, 105, 107, 112, 116, 120, 124, 127 and 128 are supported by a written description under §112, first paragraph and do not contain new matter

Claim 128, which depends from Claim 110, recites that layer (B) further comprises a cyanine dye. Dependent Claims 101, 105, 107, 112, 116, 120, 124, and 127 similarly require that layer (B) contains a compound which generates heat upon absorbing light. The Examiner rejects Claim 128 and states that it "contains new matter since the cyanine dyes for layer B are only disclosed in the specification and original patent as infrared absorbing dyes for generating heat." The Examiner has generally included dependent Claims 101, 105, 107, 112, 116, 120, 124, and 127 in the new matter and written description rejections.

By virtue of its dependency from Claim 110, Claim 128 requires a positive-type photosensitive image-forming material for use with an infrared laser having a layer (A)

comprising a cyanine dye, and a layer (B) comprising a cyanine dye. As the Examiner acknowledges, the cyanine dyes for layer B are only disclosed in the specification and original patent as infrared absorbing dyes for generating heat. Positive-type photosensitive materials containing cyanine dyes which absorb light and generate heat, in both layers (A) and (B), are unquestionably disclosed in the specification. Literal support for the subject matter recited in Claims 101, 105, 107, 112, 116, 120, 124, 127 and 128 is provided by the description at, for example, column 16, line 66, through column 17, line 25, and column 18, lines 39-40, of the specification.

The present new matter and §112 rejections of Claims 101, 105, 107, 112, 116, 120, 124, 127 and 128 should therefore be reversed on this separate basis.

B. ANTICIPATION BY DAMME '502

Claims 49-50, 53-55, 85-87, 100-101, 111-112, 115-116, 119-120, 123-124, and 127 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,922,502 ("Damme '502"). The Examiner states that Damme '502 discloses materials with supports, photosensitive layers with alkali soluble polymers and, laminated thereon, intermediate layers with IR absorbing dyes and alkali soluble polymers, including polyvinyl phenols, meeting the requirement of alkali soluble phenol polymer containing layers with light absorbers laminated directly on layers with alkali soluble polymers set forth in the instant claims (referring to col. 2, line 22-col. 3, line 10, col. 4, lines 1-12; col. 5, lines 37-57; col. 6, lines 1-6). The Examiner also states that the disclosed elements comprise thermosensitive layers with light absorbers and alkali soluble resins, including novolaks, laminated directly on the intermediate layers with alkali soluble polymers and light absorbers. With respect to Claims 50, 111 and 119, the Examiner states that the

solvents are not necessarily present in the claimed coated materials. In regard to Claim 110, the Examiner states that the intermediate layers include methacrylic acid copolymers.

Appellants submit that the rejection of Claims 49-50, 53-55, 85-87, 100-101, 111-112, 115-116, 119-120, 123-124, and 127 should be reversed, because Damme '502 does not disclose each and every limitation of these claims, arranged in the same way as in the claims, as required for anticipation under §102(b). *Net MoneyIn, Inc. v. VeriSign,* Inc., 545 F.3d 1359, 1369-70 (Fed. Cir. 2008).

Each of the presently rejected independent claims recites that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity. Each of the rejected claims further requires a layer (B), containing an aqueous alkali-soluble resin having a phenolic hydroxyl group or a novolak, that is laminated directly on layer (A) formed on a substrate.

Damme '502 does not disclose a positive type photosensitive image-forming material having layers corresponding to presently claimed layers (A) and (B). Moreover, Damme '502 does not disclose any layer corresponding to layer (A) in the claimed positive-type photosensitive image-forming material, containing not less than 50% by weight of an aqueous alkali-soluble polymer compound, where the copolymer contains a monomer that is effective to improve plate wear resistance and sensitivity in the recited amount of 10% by mol or more.

Damme '502 relates to a three-layer thermographic lithographic printing plate, having coated on a hydrophilic substrate (1) a photosensitive layer that does not contain a material which generates heat upon absorbing light, but rather is sensitive to UV light, (2) an intermediate layer that is soluble or swellable in an aqueous alkaline medium, and (3) an ablatable

thermosensitive masking layer that is opaque to UV light, containing a binder and a thermally absorbing material such as infrared-absorbing carbon pigment or other pigments. (col. 2, lines 55-62). As Damme '502 makes clear, the lithographic plate is exposed by a two-step process, in which the thermosensitive layer (3) is first selectively ablated by imagewise infrared exposure to form a printing mask, and the photosensitive layer is then exposed through the mask. During development, both the remaining infrared mask layer and intermediate layer are completely removed "thanks to the presence of the intermediate layer." (col. 2, lines 38-48).

Damme '502 contains indiscriminate disclosure of various polymers that may be present in any of the three layers, in any order. The binder in the intermediate layer includes suitable hydrophilic binders from any of eight classes of hydrophilic binders, (polyvinyl alcohol, polyvinylpyrollidone, polyethyleneoxide, celluloses, sacharides, gelatin, carboxyl containing polymers such as e.g. homo- or copolymers of (meth)acrylic acid, maleinic acid anhydride based polymers, polymers containing phenolic hydroxy groups e.g. polyvinylphenols) (col. 4, lines 2-12). Of these classes of binders, only one is a copolymer, and there is no disclosure of any comonomer present in the copolymer, or of a monomer that is effective to improve plate wear and resistance. Because Damme '502 does not disclose *any* copolymer containing at least 10 mol% of *any* monomer that is effective to improve plate wear resistance or sensitivity, Damme '502 cannot anticipate any of the appealed claims.

With respect to the functional recitations of the present claims, no copolymer that is present in the intermediate layer of Damme '502 can improve plate wear resistance, because the reference clearly teaches that it is necessary to select a binder for the intermediate layer that will be *completely removed* during development, along with the remaining thermosensitive masking layer (col. 2, lines 44-48). An intermediate binder layer that is completely removed during

development cannot improve plate wear resistance, no matter what its composition may be. At most, such an intermediate layer may improve adverse effects of the thermosensitive layer on properties of the photosensitive layer, such as developability (col. 2, lines 41-44), but this disclosed advantage of Damme '502 is attained only if the intermediate layer does not contain an infrared pigment.

The disclosure of binders in the photosensitive layer, which is sensitive to UV rather than infrared light and does not contain any compound that absorbs light and generates heat, is similarly broad and undifferentiated. The photosensitive layer contains a diazo compound and an alkali-soluble novolak resin (col. 5, lines 38-49). It is also possible to optionally incorporate alkali-soluble polymers other than novolak resins, such as styrene-acrylic acid copolymer, methyl methacrylate-methacrylic acid copolymer, alkali-soluble polyurethane resin, alkali-soluble vinylic resins, and alkali-soluble polybutyral resins (col. 5, lines 50-57). The two disclosed copolymers do not contain monomers that are effective to improve plate wear resistance and sensitivity, but are examples of additional copolymerizable monomers disclosed in the '551 patent. (*e.g.*, col. 6, line 20-col. 7, line 32).

Damme '502 contains only the most general description of the alkali-soluble binder that is present in the thermosensitive layer (3), apart from one specific example, which is nitrocellulose, and does not disclose the limitation of the appealed claims that the claimed layer (B) contains not less than 50% by weight of an aqueous alkali-soluble resin having a phenolic hydroxyl group. (col. 3, lines 1-10). With respect to the thermosensitive layer, Damme '502 states that suitable binders are "the hydrophilic polymers mentioned hereinafter for use in the intermediate layer and/or the alkali soluble binders mentioned in the composition of the photosensitive layer." (col. 2, line 65-col. 3, line 4). With respect to the thermosensitive layer,

Damme '502 thus teaches that the binder in the thermosensitive layer can be nitrocellulose, any of 8 classes of hydrophilic binders, (including polyvinyl alcohol, polyvinylpyrollidone, polyethyleneoxide, celluloses, sacharides, gelatin, carboxyl containing polymers such as e.g. homo- or copolymers of (meth)acrylic acid, maleinic acid anhydride based polymers, polymers containing phenolic hydroxy groups e.g. polyvinylphenols) (col. 4, lines 2-12), novolak, styrene-acrylic acid copolymer, methyl methacrylate-methacrylic acid copolymer, alkali-soluble polyurethane resin, alkali-soluble vinylic resins, or alkali-soluble polybutyral resins. (col. 5, lines 50-57).

The appealed claims require a specific two-layer structure, in which the first layer (A) contains a polymer including at least 10% of a monomer that is effective to improve plate wear resistance and sensitivity, and a second layer (B) coated directly on layer (A) contains not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group. In order to attain a combination of layers containing a copolymer and a phenolic resin among the myriad possibilities suggested by Damme '502, it would be necessary to pick and chose among at least 8 classes of binders for the first layer (A), only one of which is a copolymer, and among at least 15 categories of binders for the second layer (B). With respect to layer (A), Damme '502 does not disclose that the copolymer contains any monomer that is effective to improve plate wear resistance, because the reference teaches that it is essential for this alkali-soluble intermediate layer to be completely removed during development. Damme '502 plainly does not disclose a positive-type photosensitive material having *either* layer of the rejected claims, much less the specific combination of copolymer and phenolic resin providing the benefits of improved plate wear resistance and sensitivity required by the present claims.

The Examiner takes the position that "[t]he alkali soluble copolymer underlayers of West et al. and Van Damme et al. would inherently, at least to some extent, reduce heat dispersion into their substrates from heat generated by light absorbers in their upper layers which is the disclosed (col. 4) function of the copolymer underlayers A of the instant claims." Even if it is assumed that this is the case, it is not a functional limitation of the present claims, but is simply a disclosed advantage of the invention. By following the teaching of Damme '502, the intermediate layer of Damme '502 plainly could not function to improve plate wear resistance as presently claimed, because it must be completely removed during development. If the intermediate layer contains an infrared pigment, the asserted function of reducing heat dispersion into the substrate through the UV-sensitive layer is lost, and developability of the element is adversely affected. (col. 2, lines 38-43).

The miscellaneous description in Damme '502, of layers which can contain dozens of binders, in any layer order, without disclosure of the requirement that a copolymer in the lower layer must contain a monomer that is effective to improve plate wear resistance and sensitivity, and the upper layer must contain a phenolic resin, cannot anticipate any of the present claims. It is not possible to pick and chose among hundreds of possible combinations of layers and polymers, without specific guidance from the reference both to select specific layer compositions, and to arrange the layers in the recited order, to anticipate the claimed invention. *See Sanofi-Synthelabo v. Apotex*, Inc., 470 F.3d 1368, 1377-78 (Fed. Cir. 2006). The only guidance that is provided by Damme '502 with respect to the intermediate layer, is that it cannot improve plate wear resistance, because it is completely removed during development. Plainly, Damme '502 does not describe each of layers (A) and (B) of the present claims, containing the copolymer and phenolic resin specified in each layer, in which layer (B) is directly coated on

layer (A) formed on the substrate, "arranged in the same way as in the claim." *Net MoneyIn, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369-70 (Fed. Cir. 2008).

For these reasons, the rejection of Claims 49-50, 53-55, 85-87, 100-101, 111-112, 115-116, 119-120, 123-124, and 127 as anticipated by Damme '502 should be reversed.

1. *Claim 54 is not anticipated by Damme '502*

Apart from the reasons stated above, Claim 54 is not anticipated by Damme '502 because Claim 54 recites that the material which generates heat upon absorbing light in layer (A) is an infrared-absorbing dye compound. Damme '502 does not disclose an infrared-absorbing dye compound, and this rejection should accordingly be reversed.

C. OBVIOUSNESS REJECTIONS

Claims 51-52, 56-75, 102-105, 110, 113, 117-118, 121-122, 125-126, and 128 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Damme '502 in view of U.S. Patent No. 5,731,123 ("Kawamura") and U.S. Patent No. 6,280,899 ("Parsons").

The Examiner maintains that Damme '502 (col. 6, lines 1-6) discloses materials with layers within the scope of layers A and B with dyes as visible coloring agents and dyes as IR absorbers, but does not disclose the particular coloring dyes or IR absorbing dyes set forth in the rejected claims. The Examiner states that Kawamura (col. 34, lines 4-11) and Parsons (col. 5, line 56-col. 6, line 57; col. 9, lines 1-52; example 31) disclose thermosensitive materials with commercially available coloring dyes as set forth in claims 51-52, 56-57, 83-84, 90-91, 102-103, 113, 117-118, 121, 125 and 126. The Examiner further states that Parsons discloses that preferred IR absorbing dyes for converting light into heat include the cyanine dyes of instant claims 58-76, 104, 105 and 100. The Examiner maintains that since Damme '502 discloses the

use of visible dyes for coloring images, it would be obvious to one skilled in the art to use commercially available coloring dyes such as those set forth in Parsons and Kawamura as the called for coloring dyes in Damme '502. The Examiner also maintains that it would be obvious to use the preferred cyanine dyes of Parsons as the called for IR absorbing dyes in Damme '502.

With respect to Kawamura, the Examiner maintains that this patent is available as a reference against reissue claims 49-75, 80-91 and 100-126 because the parent application and foreign priority document do not disclose the subject matter identified as new matter. The Examiner thus concedes that Kawamura is improperly cited as a reference if the Examiner's new matter rejection with respect to these claims is reversed. Appellants maintain that Kawamura is not an effective reference, because the new matter rejection is incorrect for the reasons set forth above, and the invention of claims 49-75, 80-91 and 100-126 is fully supported by parent application Ser. No. 09/173,719 and the foreign priority documents.

Each of presently rejected Claims 51-52, 56-76, 83-84, 90-91, 102-103, 113, 117-118, 121, and 125-126 is a dependent claim which depends from an independent claim included in the §102(b) rejection over Damme '502 considered above. Rejected Claims 104 and 110 are independent claims including the recitation that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity. As for presently rejected Claim 105, it depends from Claim 104.

Therefore, each of the presently rejected claims contains the same limitations as the independent claims considered above, including the combination of a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound containing 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity, and a layer (B)

containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, where layer (B) is laminated directly on layer (A) formed on the substrate.

For the reasons set forth above in §VII.B, Damme '502 does not teach or suggest either of the layer compositions required by the claims, among myriad possible combinations of binders; does not teach that layers containing the claimed copolymer and phenolic resin are present in the specified order; and does not teach that layer (A) contains a copolymer which contains a monomer that is effective to improve plate wear and sensitivity. The inventions of the rejected claims cannot be obvious in view of Damme '502, without the exercise of hindsight.

Indeed, it is clear that Damme '502 teaches away from a layer (A) containing a copolymer containing a monomer that is effective to improve plate wear resistance, because the reference specifically teaches that the intermediate layer is completely removed during development. Regardless of the teachings of Kawamura and Parsons, the rejected claims cannot be obvious because Damme '502 specifically teaches that the binder in the intermediate layer of the reference must be removed during development, and thus that it cannot improve plate wear resistance.

The Examiner relies on Kawamura and Parsons for their teachings of specific coloring dyes and infrared absorbing dyes. Kawamura and Parsons do not cure the deficiencies of Damme '502 noted at Section VII.B above. For example, Parsons teaches "an additional layer disposed beneath the oleophilic, heat-sensitive composition, wherein the additional layer comprises a radiation absorbing compound." *See*, col. 4, lines 30-33, of Parsons. No copolymer is disclosed as being present in this layer. *See*, col. 10, lines 4-19. Parsons does not specifically teach a layer corresponding to claimed layer (A) containing not less than 50% by weight of an

aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity.

For these fundamental reasons, none of Claims 51-52, 56-75, 102-105, 110, 113, 117-118, 121-122, 125-126, and 128 would have been obvious to a person skilled in the art based on the teachings of Damme '502, in combination with Parsons and Kawamura. The rejection of Claims 51-52, 56-75, 102-105, 110, 113, 117-118, 121-122, 125-126 and 128 as obvious over Damme '502 in view of Kawamura '123 and Parsons should be reversed.

D. ANTICIPATION BY WEST

Claims 49-50, 54, 58-61, and 64-67 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,060,222 ("West"). The Examiner maintains that West discloses materials with thermosensitive layers of phenolic resins, dissolution inhibitors and cyanine IR absorbing dyes directly laminated on subbing layers with alkali soluble polymer (citing col. 3, lines 42-60; col. 6, lines 12-67; col. 5, lines 1-60; example 1). The Examiner states that the alkali soluble copolymer underlayers of West would inherently, at least to some extent, reduce heat dispersion into the substrate from heat generated by light absorbers in their upper layers, and would provide more heat for development and increase plate wear and sensitivity The Examiner also states that the photosensitive underlayers of West containing amide and phosphonic acid monomers that provide alkali solubility. The Examiner maintains that West discloses two layer elements, since example 1 of West discloses hydrophilic acrylamide copolymer subbing layers and col. 6, line 58-col. 7, line 15 sets forth subbing layers.

With respect to the rejection of Claims 49-50, 54, 58-61, and 64-67 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,060,222 ("West"), West does not disclose a positive-type photosensitive image-forming material as claimed in independent Claim 49, having

a two-layer structure in which a layer (A) and a layer (B) each contain a material which generates heat upon absorbing light. At most, West may disclose a positive-type photosensitive image-forming material having a single layer which contains a phenolic alkali-soluble "reactive" resin, an infrared-absorbing compound, a thermochemical-acid generating compound which is a Bronsted acid precursor, and an alkali-dissolution inhibitor having an acid-cleavable C-O-C group. (col. 3, lines 6-17).

The only other optional layers that may be present are subbing or antihalation layers that can be disposed under the imaging layer or on the backside of the support. (col. 7, lines 10-15). There is no disclosure in West that the subbing or antihalation layer contains a material which generates heat upon absorbing light, as required in layer (A) of Claim 49. Nor is there any disclosure in West that the subbing or antihalation layer is effective to improve plate wear resistance and sensitivity. One skilled in the art would appreciate that the function of the subbing layer in West is to improve adhesion of the single light-sensitive layer of the element, and to provide an aluminum substrate with an effective permanent barrier layer that will render the surface of the aluminum substrate hydrophilic during printing. (U.S. Patent 5,368,974, cited by West, at col. 3, lines 28-38). It is equally plain that the subbing layer is not soluble in aqueous alkali solution, as required by Claim 49, because the subbing layer must remain on the substrate after development of the exposed plate, in order to provide a stable hydrophilic surface and prevent the background from scumming during the printing process. ('974 patent, col. 3, lines 44-49; col. 2, lines 4-17). West accordingly does not disclose a layer corresponding to layer (A) of Claim 49, containing not less than 50% by weight of an aqueous alkali-soluble polymer compound, containing, as a polymerization component, 10% by mol or more of a monomer

effective to improve plate wear resistance and sensitivity, and a material which generates heat upon absorbing light.

Reversal of the anticipation rejection of Claims 49-50, 54, 58-61, and 64-67 is respectfully requested for these reasons.

VIII. CONCLUSION

In view of the foregoing argument, it is respectfully submitted that the rejection of claims 49-75, 85-87, and 100-128 is in error. Appellants therefore respectfully request the Board to reverse the rejection of all of the appealed claims.

The Notice of Appeal was filed on June 9, 2008. This Appeal Brief is filed on January 9, 2009, with a petition for a 5-month extension under 37 C.F.R. §1.36. The brief is thus timely filed.

The fees required under 37 C.F.R. §§41.37(a)(2) and 41.20(b)(2) and 37 C.F.R. §1.17(a) are being charged to Deposit Account No. 19-4880 via EFS Payment Screen.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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CLAIMS APPENDIX

CLAIMS 49-75, 85-87, 100-128 ON APPEAL:

49. A positive-type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate;

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity, and a material which generates heat upon absorbing light, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (B) being laminated directly on said layer (A) formed on said substrate,

wherein at least said layer (B) contains at least one infrared-absorbing dye compound which generates heat upon absorbing light.

50. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein the aqueous alkali solution-soluble resin of layer (B) is soluble in a solvent which does not dissolve the copolymer of layer (A).

51. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein layer (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

52. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 51, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

53. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said layer (A) and said layer (B) are infrared-sensitive.

54. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 53, wherein said material which generates heat upon absorbing light in layer (A) is an infrared-absorbing dye compound.

55. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein the aqueous alkali solution-soluble resin of layer (B) is soluble in a solvent which does not dissolve the copolymer of layer (A).

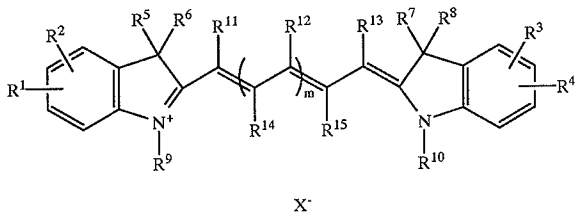
56. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein layer (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

57. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 56, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

58. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said infrared-absorbing dye compound in layer (B) is a cyanine dye compound.

59. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 58, wherein said cyanine dye compound in layer (B) is represented by formula (XII):

(XII)



wherein:

R^1 to R^4 each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R^1 and R^2, R^3 and R^4 may be linked to form a ring;

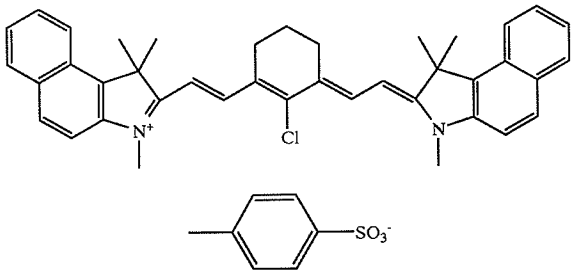
R^5 to R^{10} each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

R^{11} to R^{13} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{12} may be linked to R^{11} or R^{13} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{12} groups, which may be the same or different, may be linked to form a ring;

R^{14} and R^{15} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{14} may be linked to R^{15} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{14} groups, which may be the same or different, may be linked to form a ring; and

X^- represents an anion.

60. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



61. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein the aqueous alkali solution-soluble resin of layer (B) is soluble in a solvent which does not dissolve the copolymer of layer (A).

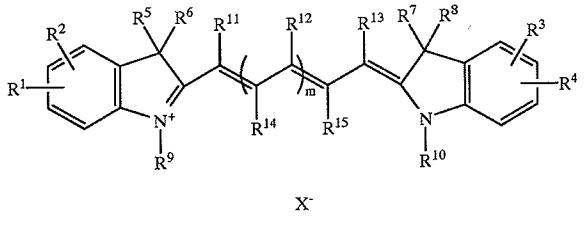
62. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 59, wherein layer (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

63. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 62, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

64. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein said infrared-absorbing dye compound in layer (A) is a cyanine dye compound.

65. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 64, wherein said cyanine dye compound in layer (A) is represented by formula (XII):

(XII)



wherein:

R^1 to R^4 each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R^1 and R^2, R^3 and R^4 may be linked to form a ring;

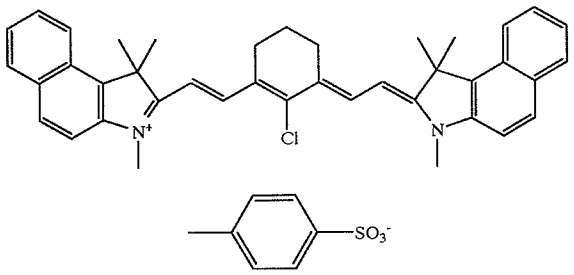
R^5 to R^{10} each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

R^{11} to R^{13} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{12} may be linked to R^{11} or R^{13} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{12} groups, which may be the same or different, may be linked to form a ring;

R^{14} and R^{15} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{14} may be linked to R^{15} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{14} groups, which may be the same or different, may be linked to form a ring; and

X^- represents an anion.

66. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 65, wherein said cyanine dye compound in layer (A) is cyanine dye A represented by the following formula:



67. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 65, wherein the aqueous alkali solution-soluble resin of layer (B) is soluble in a solvent which does not dissolve the copolymer of layer (A).

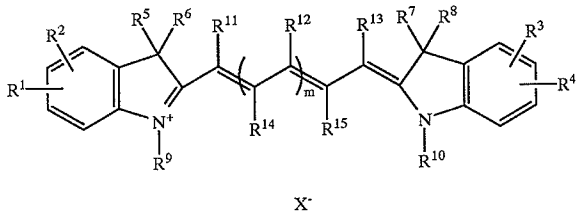
68. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 65, wherein layer (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

69. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 68, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

70. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 54, wherein said infrared-absorbing dye compounds in layers (A) and (B) are cyanine dye compounds.

71. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 70, wherein said cyanine dye compounds are represented by formula (XII):

(XII)



wherein:

R^1 to R^4 each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R^1 and R^2, R^3 and R^4 may be linked to form a ring;

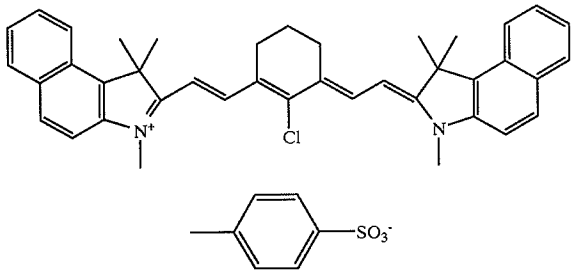
R^5 to R^{10} each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

R^{11} to R^{13} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{12} may be linked to R^{11} or R^{13} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{12} groups, which may be the same or different, may be linked to form a ring;

R^{14} and R^{15} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{14} may be linked to R^{15} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{14} groups, which may be the same or different, may be linked to form a ring; and

X^- represents an anion.

72. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein said cyanine dye compound in layer (B) is cyanine dye A represented by the following formula:



73. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein the aqueous alkali solution-soluble resin of layer (B) is soluble in a solvent which does not dissolve the copolymer of layer (A).

74. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 71, wherein at least one of layers (A) and (B) further contains an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

75. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 74, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

85. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 49, wherein said substrate comprises a polyester film or an aluminum plate.

86. A positive-type photosensitive image-forming material for use with an infrared laser according to any one of claims 49-79 and 85, wherein the aqueous alkali solution-soluble resin having a phenolic hydroxyl group contained in said layer (B) is a novolak resin.

87. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 86, wherein the novolak resin is selected from the group consisting of phenol formaldehyde resin, m-cresol formaldehyde resin, p-cresol formaldehyde resin, m-/p-mixed cresol formaldehyde resin, and phenol/cresol mixed formaldehyde resin comprising at

least one of m-cresol formaldehyde resin, p-cresol formaldehyde resin, and m-/p-mixed cresol formaldehyde resin.

100. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, 10% by mol or more of at least one monomer effective to improve plate wear resistance and sensitivity and at least one additional monomer selected from the group consisting of the following monomers (1) to (12):

(1) an acrylate or methacrylate having an aliphatic hydroxyl group,

(2) an alkyl acrylate,

(3) an alkyl methacrylate,

(4) an acrylamide or methacrylamide,

(5) a vinyl ether,

(6) a vinyl ester,

(7) a styrene,

(8) a vinyl ketone,

(9) an olefin,

(10) N-vinyl pyrrolidone, N-vinyl carbazole, 4-vinyl pyridine, acrylonitrile, or methacrylonitrile,

(11) an unsaturated imide, and

(12) an unsaturated carboxylic acid; and

a layer (B) containing not less than 50% by weight of a novolak resin,

wherein said layer (B) is laminated directly on said layer (A) formed on said substrate, and

wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

101. A positive type photosensitive image-forming material for use with an infrared laser according to claim 100, wherein layer (B) comprises at least one compound which generates heat upon absorbing light.

102. A positive type photosensitive image-forming material for use with an infrared laser according to claim 100, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

103. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 102, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

104. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

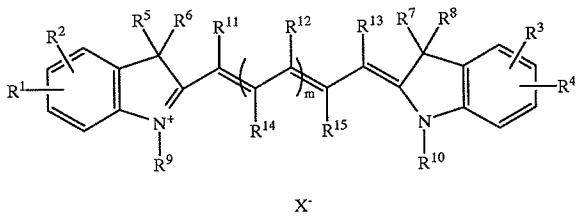
a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group,

wherein said layer (B) is laminated directly on said layer (A) formed on said substrate, and

wherein at least one of the layer (A) and the layer (B) contains a compound which generates heat upon absorbing light that is represented by the formula (XII):

(XII)



wherein:

R^1 to R^4 each independently represents an alkyl group, an alkenyl group, an alkoxy group, a cycloalkyl group or an aryl group, each having from 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; and R^1 and R^2, R^3 and R^4 may be linked to form a ring;

R^5 to R^{10} each independently represents an alkyl group having 1 to 12 carbon atoms or an aryl group having 1 to 12 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitryl group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group;

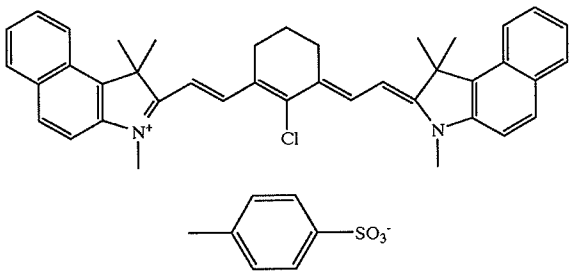
R^{11} to R^{13} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a

carboxylate group, or a sulfonate group; R^{12} may be linked to R^{11} or R^{13} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{12} groups, which may be the same or different, may be linked to form a ring;

R^{14} and R^{15} each independently represents a hydrogen atom, a halogen atom or an alkyl group having 1 to 8 carbon atoms, each of which is unsubstituted or substituted with a halogen atom, a carbonyl group, a nitro group, a nitrile group, a sulfonyl group, a carboxyl group, a carboxylate group, or a sulfonate group; R^{14} may be linked to R^{15} to form a ring; m is an integer of 1 to 8, and when m is 2 or more, plural R^{14} groups, which may be the same or different, may be linked to form a ring; and

X^- represents an anion.

105. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 104, wherein said compound which generates heat upon absorbing light is present in layer (B) and is cyanine dye A represented by the following formula:



106. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group,

wherein the layer (B) contains a surfactant,

wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and

wherein said layer (B) is laminated directly on said layer (A) formed on said substrate.

107. A positive type photosensitive image-forming material for use with an infrared laser according to claim 106, wherein layer (B) comprises at least one compound which generates heat upon absorbing light.

108. A positive type photosensitive image-forming material for use with an infrared laser according to claim 106, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

109. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 108, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

110. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of a copolymer which contains, as a copolymerization component, 10% by mol or more of at least one monomer effective to improve plate wear resistance and sensitivity and selected from an unsaturated imide, methacrylamide, and an unsaturated carboxylic acid; and

a layer (B) containing not less than 50% by weight of a novolak resin;

wherein said layer (A) comprises a cyanine dye and said layer (B) comprises an Ethyl Violet dye, and

wherein said layer (B) is laminated directly on said layer (A) formed on said substrate.

111. A positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of:

providing a substrate;

coating on the substrate a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity; and

coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A) using a solvent which does not dissolve the layer (A),

wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and

wherein the layer (B) is laminated directly on the layer (A) formed on the substrate.

112. A positive type photosensitive image-forming material for use with an infrared laser according to claim 111, wherein layer (B) comprises at least one compound which generates heat upon absorbing light.

113. A positive type photosensitive image-forming material for use with an infrared laser according to claim 111, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

114. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 113, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

115. A positive type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate having thereon in this order:

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity; and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group;

wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light,

wherein said layer (B) is laminated directly on said layer (A) formed on said substrate, and

wherein a coated amount of the layer (A) is from 1.4 to 4.0 g/m^2.

116. A positive type photosensitive image-forming material for use with an infrared laser according to claim 115, wherein layer (B) comprises at least one compound which generates heat upon absorbing light.

117. A positive type photosensitive image-forming material for use with an infrared laser according to claim 115, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

118. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 117, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

119. A positive type photosensitive image-forming material for use with an infrared laser, which is produced by a method comprising the steps of

providing a substrate,

coating on the substrate a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity,

coating a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group on the layer (A), and

drying the coated layer (B) by applying a high-pressure air flow or heat provided by a heating roll,

wherein at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light, and

wherein the layer (B) is laminated directly on the layer (A) formed on the substrate.

120. A positive type photosensitive image-forming material for use with an infrared laser according to claim 119, wherein layer (B) comprises at least one compound which generates heat upon absorbing light.

121. A positive type photosensitive image-forming material for use with an infrared laser according to claim 119, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

122. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 121, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

123. A positive-type photosensitive image-forming material for use with an infrared laser, comprising:

a substrate;

a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer

effective to improve plate wear resistance and sensitivity, and a material which generates heat upon absorbing light, and

a layer (B) containing not less than 50% by weight of an aqueous alkali solution-soluble resin having a phenolic hydroxyl group, said layer (B) being laminated directly on said layer (A) formed on said substrate.

124. A positive type photosensitive image-forming material for use with an infrared laser according to claim 123, wherein said layer (B) comprises at least one material which generates heat upon absorbing light.

125. A positive type photosensitive image-forming material for use with an infrared laser according to claim 123, wherein at least one of layer (A) and layer (B) comprises an oil-soluble dye or basic dye selected from the group consisting of Oil Yellow #101, Oil Yellow #103, Oil Pink #312, Oil Green BG, Oil Blue BOS, Oil Blue #603, Oil Black BY, Oil Black BS, Oil Black T-505, Victoria Pure Blue, Crystal Violet, Methyl Violet, Ethyl Violet, Rhodamine B, Malachite Green, and Methylene Blue.

126. A positive-type photosensitive image-forming material for use with an infrared laser according to claim 125, wherein said oil-soluble dye or basic dye is selected from the group consisting of Victoria Pure Blue, Crystal Violet, Methyl Violet, and Ethyl Violet.

127. A positive type photosensitive image-forming material for use with an infrared laser according to claim 104, wherein said compound which generates heat upon absorbing light is present in layer (B).

128. A positive type photosensitive image-forming material for use with an infrared laser according to claim 110, wherein said layer (B) further comprises a cyanine dye.

EVIDENCE APPENDIX

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), no evidence was submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, and no other evidence was entered by the Examiner and relied upon by Appellants in the appeal.

RELATED PROCEEDINGS APPENDIX

There are no copies of decisions rendered by a court or the Board in any proceeding identified above in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).